

=> d his

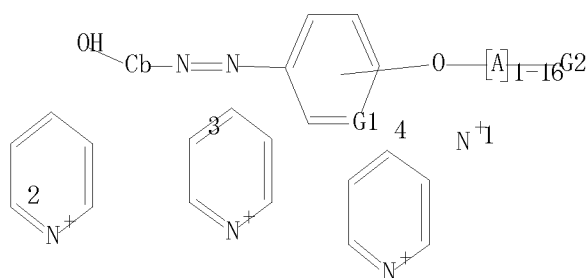
(FILE 'HOME' ENTERED AT 13:55:23 ON 15 DEC 2008)

FILE 'REGISTRY' ENTERED AT 13:55:36 ON 15 DEC 2008

L1 STRUCTURE UPLOADED
L2 STRUCTURE UPLOADED
L3 0 S L1 OR L2
L4 55 S L1 OR L2 FULL

=> d que l4 stat

L1 STR

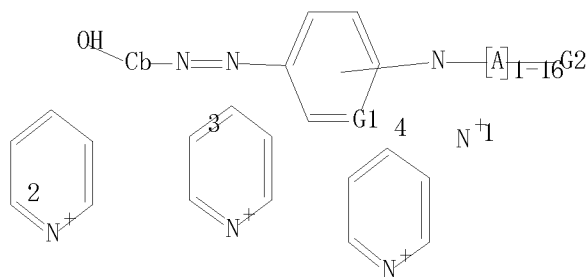


G1 N, OH

G2 [@1], [@2], [@3], [@4]

Structure attributes must be viewed using STN Express query preparation.

L2 STR



G1 N, OH

G2 [@1], [@2], [@3], [@4]

Structure attributes must be viewed using STN Express query preparation.

L4 55 SEA FILE=REGISTRY SSS FUL L1 OR L2

100.0% PROCESSED 591057 ITERATIONS
SEARCH TIME: 00.00.08

55 ANSWERS

=> fil capl

FILE 'CAPLUS' ENTERED AT 13:57:32 ON 15 DEC 2008

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FILE COVERS 1907 - 15 Dec 2008 VOL 149 ISS 25
FILE LAST UPDATED: 14 Dec 2008 (20081214/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

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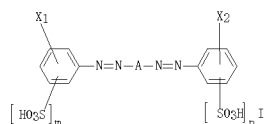
<http://www.cas.org/legal/infopolicy.html>
'FIONA' IS DEFAULT FORMAT FOR 'CAPLUS' FILE

=> s l4
L5 19 L4

=> d 1-19 bib abs hitstr

L5 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2007:1012907 CAPLUS
 DN 147:408204
 TI Method for preparing diazo active dye and its composition
 IN Ruan, Weiliang; Gong, Guoliang; Ou, Qi
 FA Zhejiang Longsheng Group Co., Ltd., Peop. Rep. China; Shanghai Colva
 Dyestuff Industrial Corporation
 SO Faming Zhuanti Shengqing Gongkai Shuomingshu, 25pp.
 CODEN: CNXXEV
 DT Patent
 LA Chinese
 FAN.CNT 1

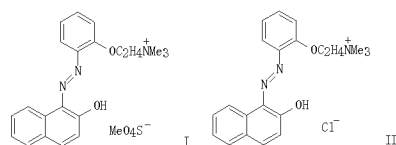
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI CN 101029184	A	20070905	CN 2006-10049642	20060228
PRAI CN 2006-10049642				
OS MARPAT 147:408204				
GI				



AB The title diazo active dye has a structure shown in formula I, while A is a substituted benzene ring or naphthalene ring. The substituent is one or more of OH, SO3H and NR5. The active dye can be used for dyeing cellulose fibers alone or its composition is used for dyeing fibers containing N or hydroxyl into black. The active dye has the advantages of bright color, and good resistances against water, friction and sweat stain.
 IT 950919-08-1P
 RL: IMF (Industrial manufacture); TBM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparing diazo active dye and its composition)
 RN 950919-08-1 CAPLUS
 CN Ethanaminium, 2-[[[4-[2-[2-amino-5-hydroxy-7-sulfo-6-[2-[4-[[[(trimethylammonio)methyl]sulfonyl]amino]phenyl]diazenyl]-1-naphthalenyl]diazenyl]-3-sulphophenyl]sulfonyl]amino]-N, N, N-trimethyl- (CA INDEX NAME)

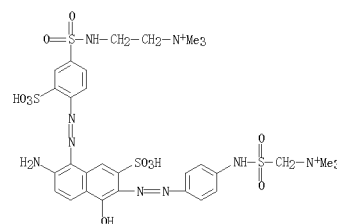
L5 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2005:1004830 CAPLUS
 DN 143:287907
 TI Cationic naphthylidiazos dyes and colorants for keratin fibers containing said compounds
 IN Goettel, Otto; Hayoz, Andre; Braun, Hans-Juergen
 FA Wella Aktiengesellschaft, Germany
 SO PCT Int. Appl., 48 pp.
 CODEN: PIXX22
 DT Patent
 LA German
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005085362	A1	20050915	WO 2004-EP14189	20041213
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, CH, OM, KE, LS, MW, MZ, NA, SD, SI, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 102004010999	A1	20050922	DE 2004-102004010999	20040306
EP 1740657	A1	20070110	EP 2004-803818	20041213
EP 1740657	B1	20070912		
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
BR 2004018613	A	20070602	BR 2004-18613	20041213
AT 373051	T	20070915	AT 2004-803818	20041213
JP 2007527457	T	20070927	JP 2007-501128	20041213
ES 2294565	T3	20080401	ES 2004-803818	20041213
US 20080167453	A1	20080710	US 2006-584955	20060630
PRAI DE 2004-102004010999	A	20040306		
WO 2004-EP14189	W	20041213		
OS MARPAT 143:287907				
GI				

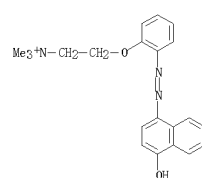


AB Cationic naphthylidiazos dyes such as, an example I or II useful for non-oxidative dyeing keratin fibers, especially hair are prepared by catalytic hydriding of nitrocompounds followed by a standard diazotization in water and coupling with 1- or 2-naphthols. Thus, I prepared by reduction of 34 g N,N,N-trimethyl-2-(2-nitrophenoxy)ethanaminium methylsulfate with H2 (pressure 9 bar) in the presence of Pd/C catalyst followed by a standard diazotization in water with NaNO2 and sulfamic acid and coupling with a solution of 2-naphthol in i-PrOH was used in a composition for dyeing hair containing 4.0 g of decyl glucoside, 5.0 g of ethanol and 0.0025 mol of this dye in

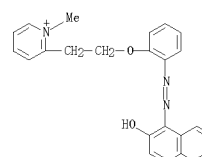
L5 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L5 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 100 g of water at pH 7.
 IT 864465-12-3P
 RL: COS (Cosmetic use); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (cationic naphthylidiazos dyes useful for non-oxidative dyeing keratin fibers prepared by catalytic hydriding of nitrocompounds followed by a standard diazotization in water and coupling)
 RN 864465-12-3 CAPLUS
 CN Ethanaminium, 2-[2-[2-(4-hydroxy-1-naphthalenyl)diazenyl]phenoxy]-N,N,N-trimethyl-, chloride (1:1) (CA INDEX NAME)



● Cl⁻
 IT 864465-14-5P 864465-15-6P
 RL: COS (Cosmetic use); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (dark red dye; cationic naphthylidiazos dyes useful for non-oxidative dyeing keratin fibers prepared by catalytic hydriding of nitrocompounds followed by a standard diazotization in water and coupling)
 RN 864465-14-5 CAPLUS
 CN Pyridinium, 2-[2-[2-(2-hydroxy-1-naphthalenyl)diazenyl]phenoxy]ethyl]-1-methyl-, methyl sulfate (1:1) (CA INDEX NAME)
 CM 1
 CRN 864465-13-4
 CMF C24 H22 N3 O2

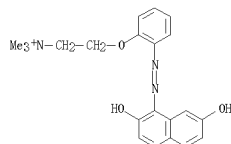


CM 2

L5 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 CN 21228-90-0
 CMF C H3 O4 S

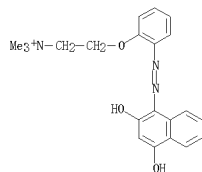
Me-O-SO₃⁻

RN 864465-15-6 CAPLUS
 CN Ethanaminium, 2-[2-[2-(2,7-dihydroxy-1-naphthalenyl)diazenyl]phenoxy]-N,N,N-trimethyl-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

IT 864465-17-8P 864465-26-9P
 RL: COS (Cosmetic use); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (orange dye; cationic naphthylidazo dyes useful for non-oxidative dyeing keratin fibers prepared by catalytic hydriding of nitrocompounds followed by a standard diazotization in water and coupling)
 RN 864465-17-8 CAPLUS
 CN Ethanaminium, 2-[2-[2-(2,4-dihydroxy-1-naphthalenyl)diazenyl]phenoxy]-N,N,N-trimethyl-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

RN 864465-26-9 CAPLUS

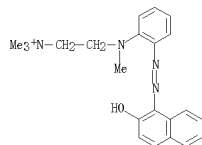
L5 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 CN 21228-90-0
 CMF C H3 O4 S

Me-O-SO₃⁻

RN 864465-23-6 CAPLUS
 CN Ethanaminium, 2-[2-[2-(2-hydroxy-1-naphthalenyl)diazenyl]phenyl]methylamino]-N,N,N-trimethyl-, methyl sulfate (1:1) (CA INDEX NAME)

CM 1

CRN 864465-22-5
 CMF C22 H27 N4 O



CM 2

CRN 21228-90-0
 CMF C H3 O4 S

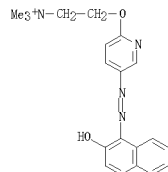
Me-O-SO₃⁻

RN 864465-25-8 CAPLUS
 CN Ethanaminium, 2-[2-[2-(4-hydroxy-1-naphthalenyl)diazenyl]phenyl]methylamino]-N,N,N-trimethyl-, methyl sulfate (1:1) (CA INDEX NAME)

CM 1

CRN 864465-24-7
 CMF C22 H27 N4 O

L5 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 CN Ethanaminium, 2-[5-[2-(2-hydroxy-1-naphthalenyl)diazenyl]-2-pyridinyloxy]-N,N,N-trimethyl-, chloride (1:1) (CA INDEX NAME)



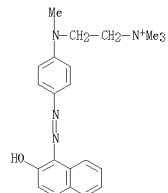
● Cl⁻

IT 864465-21-4P 864465-23-6P 864465-25-8P
 RL: COS (Cosmetic use); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (red brown dye; cationic naphthylidazo dyes useful for non-oxidative dyeing keratin fibers prepared by catalytic hydriding of nitrocompounds followed by a standard diazotization in water and coupling)

RN 864465-21-4 CAPLUS
 CN Ethanaminium, 2-[4-[2-(2-hydroxy-1-naphthalenyl)diazenyl]phenyl]methylamino]-N,N,N-trimethyl-, methyl sulfate (1:1) (CA INDEX NAME)

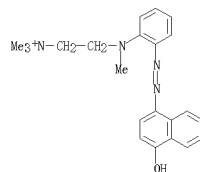
CM 1

CRN 864465-20-3
 CMF C22 H27 N4 O



CM 2

L5 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



CM 2

CRN 21228-90-0
 CMF C H3 O4 S

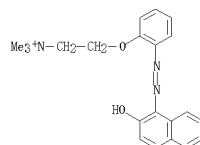
Me-O-SO₃⁻

IT 864465-11-2P 864465-18-9P
 RL: COS (Cosmetic use); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (red dye; cationic naphthylidazo dyes useful for non-oxidative dyeing keratin fibers prepared by catalytic hydriding of nitrocompounds followed by a standard diazotization in water and coupling)

RN 864465-11-2 CAPLUS
 CN Ethanaminium, 2-[2-[2-(2-hydroxy-1-naphthalenyl)diazenyl]phenoxy]-N,N,N-trimethyl-, methyl sulfate (1:1) (CA INDEX NAME)

CM 1

CRN 864465-10-1
 CMF C21 H24 N3 O2



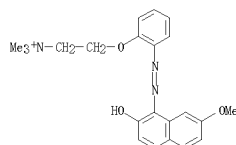
CM 2

CRN 21228-90-0
 CMF C H3 O4 S

Me-O-SO₃⁻

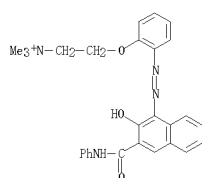
L5 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

RN 864465-18-9 CAPLUS
 CN Ethanaminium, 2-[2-[2-(2-hydroxy-7-methoxy-1-naphthalenyl)diazenyl]phenoxy]-N,N,N-trimethyl-, chloride (1:1) (CA INDEX NAME)

● Cl⁻

IT 864465-19-0P
 RL: COS (Cosmetic use); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (red violet dye; cationic naphthyl diazo dyes useful for non-oxidative dyeing keratin fibers prepared by catalytic hydriding of nitrocompounds followed by a standard diazotization in water and coupling)

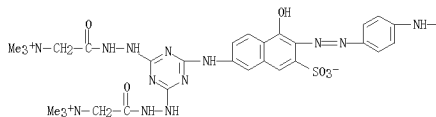
RN 864465-19-0 CAPLUS
 CN Ethanaminium, 2-[2-[2-(2-hydroxy-3-[(phenylamino)carbonyl]-1-naphthalenyl)diazenyl]phenoxy]-N,N,N-trimethyl-, chloride (1:1) (CA INDEX NAME)

● Cl⁻

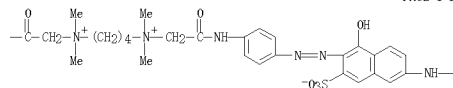
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

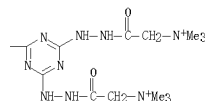
PAGE 1-A



PAGE 1-B



PAGE 1-C



CM 2

CRN 71-50-1
 CMF C2 H3 O2



L5 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1984:53197 CAPLUS
 DN 100:53197
 OREF 100:8137a,8140a
 TI Polycationic azo dyes
 IN Dore, Jacky; Pedrazzi, Reinhard
 PA Sandoz-Patent-G.m.b.H., Fed. Rep. Ger.
 SO Ger. Offen., 52 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 3313965	A1	19831027	DE 1983-5313965	19830418
CH 653697	A5	19860115	CH 1983-2041	19830415
GB 2121814	A	19840104	GB 1983-10849	19830421
GB 2121814	B	19860608		
FR 2525620	A1	19831028	FR 1983-6682	19830422
FR 2525620	B1	19850610		
JP 58217557	A	19831217	JP 1983-70953	19830423
JP 59147053	A	19840823	JP 1983-86744	19830519
US 4670546	A	19870602	US 1984-625716	19840628
PRAI DE 1982-3215361	A1	19820424		
DE 1983-3303869	A1	19830205		
US 1983-488136	A2	19830425		
OS MARPAT 100:53197				
GI				

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title dyes, including transition metal complexes, were prepared and used to dye paper, leather, textiles, and bast fibers in fast scarlet, red, orange, or blue shades. Typical dyes are I [88452-50-0], fast scarlet on paper, prepared by diazotization of p-H2NC6H4NHCH2N+Me2(CH2)4N+Me2CH2CONHC6H4NH2-p [88452-48-6] and coupling with the appropriate J acid derivative; and II [88452-51-1], similarly prepared and giving fast orange dyeings on paper.

IT 88452-50-0P
 RL: PREP (Preparation)
 (manufacture of, as scarlet dye for paper)
 RN 88452-50-0 CAPLUS
 CN 1,4-Butanediiminium, N1,N4-bis[2-[[4-[2-[6-[[[4,6-bis[2-[2-(trimethylammonio)acetyl]hydrazinyl]-1,3,5-triazin-2-yl]amino]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]phenyl]amino]-2-oxoethyl]-N1,N1,N4,N4-tetramethyl-, bis(inner salt), acetate (1:4) (CA INDEX NAME)

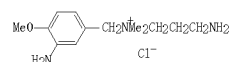
CM 1

CRN 88452-49-7
 CMF C70 H98 N28 O14 S2

L5 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1981:176692 CAPLUS
 DN 94:176692
 OREF 94:28896a,28896a
 TI N,N-Dialkyl-N-aminoalkyl-N-(amino or nitro)phenylalkyl- and N-methyl-N-[3-(amino or nitro)phenoxy-2-hydroxy-1-propyl]-N,N-bis(3-amino)propylquaternary ammonium salts
 IN Crounse, Nathan N.; Jefferies, Patrick J.
 PA Sterling Drug Inc., USA
 SO U.S., 42 pp. Cont.-in-part of U.S. 4,146,558.
 CODEN: USXXAM

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 4206144	A	19800603	US 1978-963031	19781122
US 3839426	A	19741001	US 1970-51690	19700701
US 3784599	A	19740108	US 1971-201153	19711122
US 3965182	A	19760127	US 1973-532511	19730214
CA 940121	A2	19740115	CA 1973-163853	19730216
US 3996282	A	19761207	US 1974-486180	19740705
US 4103092	A	19780725	US 1975-595864	19750714
US 4046530	A	19770906	US 1976-672482	19760331
US 4146558	A	19790327	US 1977-839975	19771006
PRAI US 1966-551868	A2	19660623		
US 1968-777884	A2	19681121		
US 1970-51673	A2	19700701		
US 1970-51690	A2	19700701		
US 1971-201153	A2	19711122		
US 1973-532511	A2	19730214		
US 1974-486180	A2	19740705		
US 1975-595864	A2	19750714		
US 1976-672482	A2	19760331		
US 1977-839975	A2	19771006		
CA 1969-65436	A3	19691021		
US 1970-51676	A2	19700701		
JP 1975-41503	A	19750404		
JP 1975-47852	A	19750418		
US 1976-672428	A2	19760331		
GI				

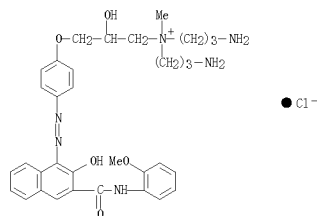
Cl⁻

I

AB Title compds. are prepared for use in intermediates in the synthesis of water-soluble yellow to red azo dyes allowing high bleedfastness and bleachability on paper. Thus, quaternization of Me2N(CH2)3NHCHO [5922-69-0] with 3,4-O2N(MeO)C6H3CH2Cl [6378-19-4], reduction of the resultant nitro compound [40948-28-5], and hydrolysis of the formamide group with aqueous HCl gave the dihydrochloride [77263-06-9] of I. Numerous other title compds. were similarly prepared, and examples of their diazotization and coupling to form dyes are also described.

IT 66754-92-5P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (dye, manufacture of)
 RN 66754-92-5 CAPLUS
 CN 1-Propanaminium, N,N-bis(3-aminopropyl)-2-hydroxy-3-[4-[2-[2-hydroxy-3-

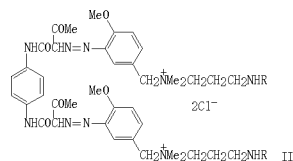
L5 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 [[(2-methoxyphenyl)amino]carbonyl]-1-naphthalenyl]diazenyl]phenoxy]-N-methyl-, chloride (1:1) (CA INDEX NAME)



L5 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1979:422413 CAPLUS

DN 91:22413
 OREF 91:3745a, 3748a
 TI Azo dyes from intermediate nitro- or aminobenzenes ring-substituted by a quaternized aminoalkyl or aminoalkoxy group
 IN Jefferies, Patrick J.; Crounse, Nathan N.
 PA Sterling Drug Inc., USA
 SO U.S., 44 pp. Cont.-in-part of U.S. 4,065,500.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN. CNT 9

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4146558	A	19790327	US 1977-839975	19771006
	US 3709903	A	19720109	US 1970-51676	19700701
	US 3839426	A	19741001	US 1970-51690	19700701
	GB 1333837	A	19731017	GB 1971-29451	19710622
	CA 940528	A1	19740122	CA 1971-116474	19710623
	US 3784599	A	19740108	US 1971-201153	19711122
	US 3935182	A	19760127	US 1973-332511	19730214
	CA 940121	A2	19740115	CA 1973-163853	19730216
	US 3996282	A	19761207	US 1974-486180	19740705
	US 4103092	A	19780725	US 1975-595864	19750714
	US 4065500	A	19771227	US 1976-672428	19760331
	US 4206144	A	19800603	US 1978-963031	19781122
	US 1966-551868	A2	19660523		
	US 1968-777884	A2	19681121		
PRAI	US 1970-51676	A2	19700701		
	US 1970-51690	A2	19700701		
	US 1971-201153	A2	19711122		
	US 1973-332511	A2	19730214		
	US 1974-486180	A2	19740705		
	US 1975-595864	A2	19750714		
	US 1976-672428	A2	19760331		
	US 1966-551868	A2	19660504		
	CA 1969-65436	A3	19691021		
	US 1970-51673	A2	19700701		
GI	US 1976-672482	A2	19760331		
	US 1977-839975	A2	19771006		

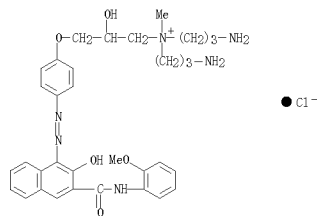


AB A large number of aromatic mono- and disazo dyes were prepared from nitro- or aminobenzenes containing a quaternary ammonium or hydrazinium group attached

L5 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 to the benzene ring via a lower alkyl or alkoxy group; the quaternary ammonium groups were of the substituted (aminoalkyl)ammonio and [(acylamino)alkyl]ammonio type. Many of the dyes are useful for dyeing paper yellow, red, or orange shades, and show a low tendency to bleed and a high degree of color discharge when bleached with hypochlorite or Cl₂. Thus, 3,4-H₂N(MeO)C₆H₃CH₂N⁺Me₂CH₂CH₂CH₂NHCHO (I) [38901-93-8] was diazotized and coupled with p-C₆H₄(NHCOCH₂COMe)₂ [24731-73-6] to give II (R = CHO) [38901-94-9], a water-sol. yellow dye which bled only slightly in the water- and soap-bleed tests on paper and also was easily bleached after being applied to paper. Its hydrolysis product, II (R = H) [38901-95-0] showed essentially the same bleachability but had superior bleed resistance. The prepn. of I and many similar cationic intermediates is described.

IT 66754-92-5P
 RL: PREP (Preparation)
 (manufacture of, for use as paper dye)

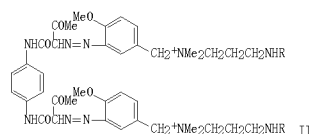
RN 66754-92-5 CAPLUS
 CN 1-Propanaminium, N,N-bis(3-aminopropyl)-2-hydroxy-3-[4-[2-[2-hydroxy-3-[(2-methoxyphenyl)amino]carbonyl]-1-naphthalenyl]diazenyl]phenoxy]-N-methyl-, chloride (1:1) (CA INDEX NAME)



L5 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1979:105604 CAPLUS

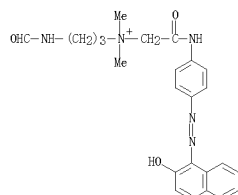
DN 90:105604
 OREF 90:16687a, 16690a
 TI Water-soluble quaternary ammonium nonheterocyclic azo dyes
 IN Jefferies, Patrick J.; Crounse, Nathan N.
 PA Sterling Drug Inc., USA
 SO U.S., 83 pp. Cont.-in-part of U.S. 3,965,182.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN. CNT 9

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4103092	A	19780725	US 1975-595864	19750714
	US 3709903	A	19720109	US 1970-51676	19700701
	US 3839426	A	19741001	US 1970-51690	19700701
	GB 1333837	A	19731017	GB 1971-29451	19710622
	CA 940528	A1	19740122	CA 1971-116474	19710623
	US 3784599	A	19740108	US 1971-201153	19711122
	US 3935182	A	19760127	US 1973-332511	19730214
	CA 940121	A2	19740115	CA 1973-163853	19730216
	US 3996282	A	19761207	US 1974-486180	19740705
	US 4065500	A	19771227	US 1976-672428	19760331
	US 4146558	A	19790327	US 1977-839975	19771006
	US 4206144	A	19800603	US 1978-963031	19781122
	US 1966-551868	A2	19660523		
	US 1968-777884	A2	19681121		
PRAI	US 1970-51676	A2	19700701		
	US 1970-51690	A2	19700701		
	US 1971-201153	A2	19711122		
	US 1973-332511	A2	19730214		
	US 1974-486180	A2	19740705		
	US 1966-551868	A2	19660504		
	CA 1969-65436	A3	19691021		
	US 1970-51673	A2	19700701		
	US 1975-595864	A2	19750714		
	US 1976-672428	A2	19760331		
GI	US 1976-672482	A2	19760331		
	US 1977-839975	A2	19771006		

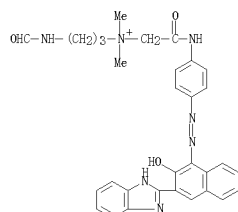


AB A large number of mono- and disazo dyes containing quaternary ammonium groups, e.g., (aminoalkyl)ammonio, [(acylamino)alkyl]ammonio, and (aminoalkyl)amino, were prepared. Many of these dyes showed good bleed resistance when used as paper dyes and were readily bleachable by hypochlorite. Thus, 3,4-H₂N(MeO)C₆H₃CH₂N⁺Me₂CH₂CH₂NHCHO (I) [38901-93-8] was diazotized and coupled with p-C₆H₄(NHCOCH₂COMe)₂ [24731-73-6] to give II (R = CHO) [38901-94-9], a water-soluble yellow dye which bled only slightly in the water- and soap-bleed tests on paper and also was easily bleached after being applied to paper. Its hydrolysis

L5 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
product, II (R = H) [38901-96-0], showed essentially the same
bleachability but had superior bleed resistance. The prep. of II and
IT 40948-45-6P 40948-96-7P 40948-98-9P
66754-92-5P 66754-94-7P
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)
RN 40948-45-6 CAPLUS
CN 1-Propanaminium, 3-(formylamino)-N-[2-[[4-[2-(2-hydroxy-1-
naphthalenyl)diazenyl]phenyl]amino]-2-oxoethyl]-N,N-dimethyl-, chloride
(1:1) (CA INDEX NAME)

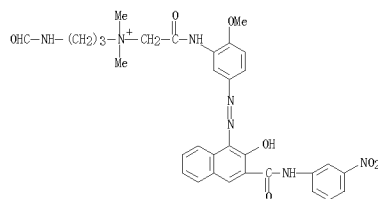
● Cl⁻

RN 40948-96-7 CAPLUS
CN 1-Propanaminium, N-[2-[[4-[2-[3-(1H-benzimidazol-2-yl)-2-hydroxy-1-
naphthalenyl]diazenyl]phenyl]amino]-2-oxoethyl]-3-(formylamino)-N,N-
dimethyl-, chloride (1:1) (CA INDEX NAME)

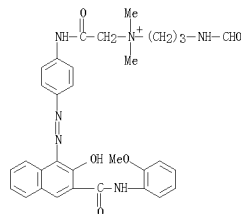
● Cl⁻

RN 40948-98-9 CAPLUS
CN 1-Propanaminium, 3-(formylamino)-N-[2-[[4-[2-[2-hydroxy-3-[[2-(3-
nitrophenyl)amino]carbonyl]-1-naphthalenyl]diazenyl]-2-
methoxyphenyl]amino]-2-oxoethyl]-N,N-dimethyl-, chloride (1:1) (CA INDEX NAME)

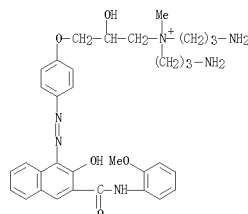
L5 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

● Cl⁻

L5 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
methoxyphenyl]amino]carbonyl]-1-naphthalenyl]diazenyl]phenyl]amino]-2-
oxoethyl]-N,N-dimethyl-, chloride (1:1) (CA INDEX NAME)

● Cl⁻

RN 66754-92-5 CAPLUS
CN 1-Propanaminium, N,N-bis(3-aminopropyl)-2-hydroxy-3-[4-[2-[2-hydroxy-3-
[[2-(2-methoxyphenyl)amino]carbonyl]-1-naphthalenyl]diazenyl]phenoxy]-N-
methyl-, chloride (1:1) (CA INDEX NAME)

● Cl⁻

RN 66754-94-7 CAPLUS
CN 1-Propanaminium, 3-(formylamino)-N-[2-[[6-[2-[2-hydroxy-3-[[2-(3-
nitrophenyl)amino]carbonyl]-1-naphthalenyl]diazenyl]-2-
methoxyphenyl]amino]-2-oxoethyl]-N,N-dimethyl-, chloride (1:1) (CA INDEX NAME)

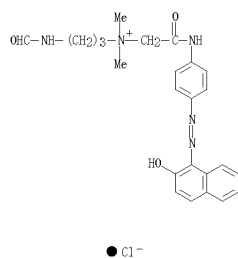
L5 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1978:512303 CAPLUS
DN 89:112303
ORF 89:17351a, 17354a
TI Water-soluble quaternary ammonium dyes
IN Jefferies, Patrick J.; Crounse, Nathan N.
PA Sterling Drug Inc., USA
SO U.S., 77 pp. Continuation-in-part of U.S. 3,839,426.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 9

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3996282	A	19761207	US 1974-486180	19740705
	US 3709903	A	19730109	US 1970-51676	19700701
	US 3839426	A	19741001	US 1970-51690	19700701
	GB 1333857	A	19731017	GB 1971-29451	19710623
	CA 940528	A1	19740122	CA 1971-116474	19710623
	US 3784599	A	19740108	US 1971-201153	19711122
	US 3935182	A	19760127	US 1973-332511	19730214
	CA 940121	A2	19740115	CA 1973-163853	19730216
	US 4103092	A	19780725	US 1975-595864	19750714
	US 4065500	A	19771227	US 1976-672428	19760331
PRAI	US 4146558	A	19790327	US 1977-839975	19771006
	US 4206144	A	19800603	US 1978-965031	19781122
	US 1966-551868	A2	19660623		
	US 1968-777884	A2	19681121		
	US 1970-51676	A2	19700701		
	US 1970-51690	A2	19700701		
	US 1971-201153	A2	19711122		
	US 1973-332511	A2	19730214		
	US 1966-551868	A2	19660304		
	CA 1969-65436	A3	19691021		
GI	US 1970-51673	A2	19700701		
	US 1974-486180	A2	19740705		
	US 1975-595864	A2	19750714		
	US 1976-672428	A2	19760331		
	US 1976-672482	A2	19760331		
	US 1977-839975	A2	19771006		

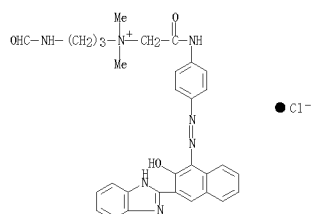
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Approx. 100 cationic water-soluble azo and disazo dyes for paper were prepared which had good bleachability and good bleed-fastness properties. The dyes were prepared by conventional azo coupling techniques and the preparation of intermediates was extensively described. Representative of the dyes prepared are: I (R = R1) [38901-94-9], II [40948-99-0], and III [66755-16-6].
IT 40948-45-6P 40948-96-7P 66754-92-5P 66754-94-7P
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation) (preparation and spectrum of)
RN 40948-45-6 CAPLUS
CN 1-Propanaminium, 3-(formylamino)-N-[2-[[4-[2-(2-hydroxy-1-naphthalenyl)diazenyl]phenyl]amino]-2-oxoethyl]-N,N-dimethyl-, chloride (1:1) (CA INDEX NAME)

L5 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

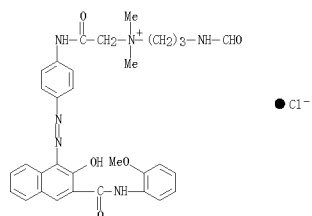


RN 40948-96-7 CAPLUS
CN 1-Propanaminium, N-[2-[[4-[2-[3-(1H-benzimidazol-2-yl)-2-hydroxy-1-naphthalenyl]diazenyl]phenyl]amino]-2-oxoethyl]-3-(formylamino)-N,N-dimethyl-, chloride (1:1) (CA INDEX NAME)

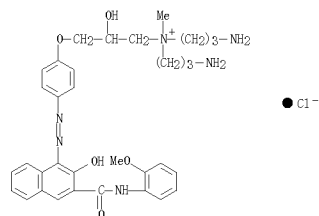


RN 66754-92-5 CAPLUS
CN 1-Propanaminium, N,N-bis(3-aminopropyl)-2-hydroxy-3-[4-[2-[2-hydroxy-3-[[2-methoxyphenyl]amino]carbonyl]-1-naphthalenyl]diazenyl]phenoxy]-N-methyl-, chloride (1:1) (CA INDEX NAME)

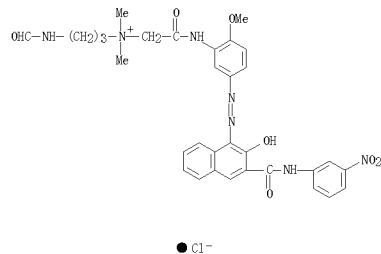
L5 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L5 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 66754-94-7 CAPLUS
CN 1-Propanaminium, 3-(formylamino)-N-[2-[[5-[2-[2-hydroxy-3-[[3-nitrophenyl]amino]carbonyl]-1-naphthalenyl]diazenyl]-2-methoxyphenyl]amino]-2-oxoethyl]-N,N-dimethyl-, chloride (1:1) (CA INDEX NAME)



IT 40948-98-9P
RL: IMF (Industrial manufacture); PREP (Preparation)

RN 40948-98-9 CAPLUS
CN 1-Propanaminium, 3-(formylamino)-N-[2-[[4-[2-[2-hydroxy-3-[[2-methoxyphenyl]amino]carbonyl]-1-naphthalenyl]diazenyl]phenyl]amino]-2-oxoethyl]-N,N-dimethyl-, chloride (1:1) (CA INDEX NAME)

L5 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

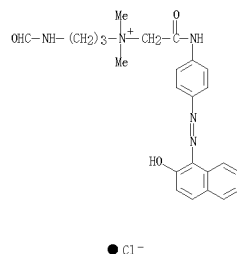
AN 1973:85910 CAPLUS
DN 78:85910
OREF 78:13713a, 13716a
TI Water-soluble quaternary ammonium salts of basic azo dyes
PA Sterling Drug Inc.
SO Brit., 40 pp.
CODEN: BRXXAA
DT Patent
LA English
FAN. CNT 9

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI GB 1299080	A	19721206	GB 1969-1299080	19691021
CA 940121	A2	19740115	CA 1973-163853	19730216
PRAI US 1968-77884	A	19681121		
CA 1969-65436	A3	19691021		

AB Sixty azo and disazo dyes were prepared by incorporating quaternary intermediate [I, R = H, H2N; R1 = H, MeO; Y = lower alkylene, NHCOCH2, NR2CH2CH2, R2 = lower alkyl, R3 = lower alkyl, lower alkenyl, R4 = lower alkyl, lower aminoalkyl; (R3R4) = cycloalkyl, R5 = H, CHO, lower acyl, benzoyl; n = 2, 3, 6] or a deazo or coupling component into the dyes and they were used to dye paper bleachable, bleed-fast shades. Thus, Me2CH2CH2CH2NHCHO was condensed with 4, 3-MeO(02N)C6H3CH2Cl and the NO2 group on the condensation product reduced to give diazo intermediate I (R = H2N, R1 MeO, Y = CH2, R3 = R4 = Me, R5 = CHO, n = 3) [38901-93-8] which was diazotized and coupled with p-CEH4(NHCOCH2Ac)2 to give disazo dye II (R5 = CHO) [38901-94-9], which dyed paper a bleachable yellow shade with slight bleeding. Hydrolysis of II (R5 = CHO) in aqueous HCl gave disazo dye II (R5 = H) [38901-95-0] which was significantly more bleed-fast than the unhydrolyzed dye. In another typical example, CEH4NEt+CH2CH2N+Me2CH2CH2NHCHO Cl- was used as the coupling component with diazotized 2, 4-Cl(02N)CEH4NH2 to give azo dye (III) [38901-96-1].

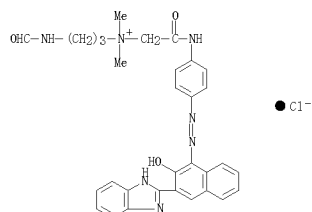
IT 40948-45-6P 40948-96-7P 40948-98-9P
RL: IMF (Industrial manufacture); PREP (Preparation)

RN 40948-45-6 CAPLUS
CN 1-Propanaminium, 3-(formylamino)-N-[2-[[4-[2-[2-hydroxy-1-naphthalenyl]diazenyl]phenyl]amino]-2-oxoethyl]-N,N-dimethyl-, chloride (1:1) (CA INDEX NAME)

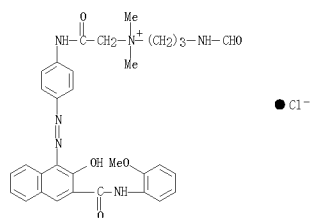


RN 40948-96-7 CAPLUS
CN 1-Propanaminium, N-[2-[[4-[2-[3-(1H-benzimidazol-2-yl)-2-hydroxy-1-

L5 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 AN naphthalenyl]diazenyl]phenyl]amino]-2-oxoethyl]-3-(formylamino)-N,N-
 dimethyl-, chloride (1:1) (CA INDEX NAME)



RN 40948-98-9 CAPLUS
 CN 1-Propanaminium, 3-(formylamino)-N-[2-[[4-[2-[2-hydroxy-3-[[[(2-methoxyphenyl)amino]carbonyl]-1-naphthalenyl]diazenyl]phenyl]amino]-2-oxoethyl]-N,N-dimethyl-, chloride (1:1) (CA INDEX NAME)



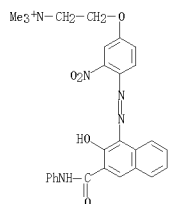
L5 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 23472-94-8 CAPLUS
 CN Ethanaminium, 2-[4-[2-[2-hydroxy-3-[(phenylamino)carbonyl]-1-naphthalenyl]diazenyl]-3-nitrophenoxy]-N,N,N-trimethyl-, methyl sulfate (1:1) (CA INDEX NAME)

CM 1

CRN 47799-87-1
 CMF C28 H28 N5 O5



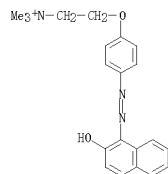
CM 2

CRN 21228-90-0
 CMF C H3 O4 S



L5 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1969:422903 CAPLUS
 DN 71:22903
 OREF 71:4247a, 4250a
 TI Water-soluble monoazo dyes
 IN Gmak, Jan; Seibisz, Halina
 PA Instytut Przemyslu Organicznego
 SO Pol., 4 pp.
 CODEN: POXXA7
 DT Patent
 LA Polish
 FAN CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PL 54538		19680224	PL	19650728
AB	The title compds. (I) are yellow to red dyes for polyacrylonitrile fibers. Thus, 4.4 parts 4-H2NOC6H4OCH2CH2NMe3+ MeSO4- was diazotized and coupled with 2.65 parts 1-phenyl-3-methyl-5-pyrazolone (II) and salted with NaCl to give I (R = Me, OH = II), a yellow dye for polyacrylonitrile fibers, in 90% yield. Similarly, other I were prepared (diaz component, OH, % yield, and shade given): 4-H2NOC6H4OCH2CH2NMe2+ PhSO3-, 2-C10H7OH, 96, orange; 4,2-C1(H2N)C6H3OCH2CH2NMe2+ MeSO4-, 2,4-dihydroxyquinoline, 92, yellow; 4,5,2-C1(O2N)C6H3OCH2CH2NMe2+ MeSO4-, AcOCH2CONHPh, 92, yellow; 4,3-H2N(O2N)C6-H3OCH2CH2NMe3+ MeSO4-, 3,2-HOClO6CONHPh, 96, red. 4-(p-morpholinoethoxy)aniline diazotized and coupled with 3-AcNHOC6H4N(CH2CH2OH)2 gave a red dye in 80% yield (quaternizing agent not specified). 4,2-Br(H2N)C6H3OCH2CH2NMe2 diazotized and coupled with PhNMe2 and the product treated with PhSO3Me gave an orange dye.			
IT	23472-92-6P 23472-94-8P RL: IMF (Industrial manufacture); PREP (Preparation)			
RN	23472-92-6 CAPLUS			
CN	Ethanaminium, 2-[4-[2-(2-hydroxy-1-naphthalenyl)diazenyl]phenoxy]-N,N,N-trimethyl-, benzenesulfonate (1:1) (CA INDEX NAME)			
CM	1			
CRN	47488-90-4			
CMF	C21 H24 N3 O2			

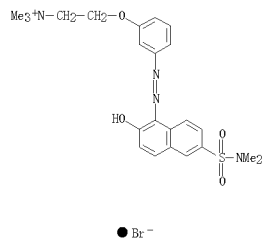


CM 2

CRN 3198-32-1
 CMF C6 H5 O3 S

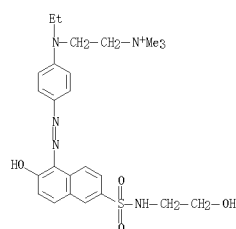
L5 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1966:105009 CAPLUS
 DN 64:105009
 OREF 64:19842b, 19843a-b
 TI Cationic azo dyes
 IN Yamatani, Wataru; Inoue, Shozo
 PA Mitsubishi Chemical Industries Co., Ltd.
 SO 5 pp.
 DT Patent
 LA Unavailable
 FAN CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 41002181	B4	19660215	JP	19630806
FRAI	JP 19630806			
GI	For diagram(s), see printed CA issue.			
AB	Manufacture of I, which dye acrylonitrile fibers red to orange shades, was described. Thus, 10 parts 3-[2,4-Me(H2N)C6H3N:N]C6H4NMe3+X- is diazotized and coupled with 11.2 parts 2,6-HOC10H6SO2N(CH2CH2OH)2 to give I (R1 = R2 = CH2CH2OH, R3 = Me), maximum 503 mμ, red on polyacrylonitrile. Similarly are prepared the following red I (R1, R2, R3, and maximum in μ given): H, Me, 508; H, (CH2)2OH, Me, 504; H, Me, Me, 504; Me, CH2(CHOH)4CH2OH, Me, 510; Me, Me, Me, 504; H, (CH2)2OH, H, 538. Also prepared are 3-H2NOC6H4OCH2CH2NMe3+Br- → 2,6-HOC10H6SO2NMe2 and 4-H2NOC6H4N(Br)CH2CH2NMe3+Cl- → 2,6-HOC10H6SO2NHCH2CH2OH which dye polyacrylonitrile fiber yellowish orange and dark red, resp. 5815-87-2. Ammonium, [2-[N-ethyl-p-[[2-hydroxy-6-[(2-hydroxyethyl)sulfamoyl]-1-naphthyl]azo]phenoxy]ethyl]trimethyl-, bromide 5815-88-3, Ammonium, [2-[N-ethyl-p-[[2-hydroxy-6-[(2-hydroxyethyl)sulfamoyl]-1-naphthyl]azo]anilino]ethyl]trimethyl-, chloride (spectrum of)			
RN	5815-87-2 CAPLUS			
CN	Ammonium, [2-[N-ethyl-p-[[2-(dimethylsulfamoyl)-2-hydroxy-1-naphthyl]azo]phenoxy]ethyl]trimethyl-, bromide (8CI) (CA INDEX NAME)			



RN 5815-88-3 CAPLUS
 CN Ammonium, [2-[N-ethyl-p-[[2-hydroxy-6-[(2-hydroxyethyl)sulfamoyl]-1-naphthyl]azo]anilino]ethyl]trimethyl-, chloride (8CI) (CA INDEX NAME)

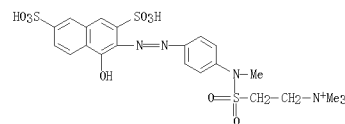
L5 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L5 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1965:499109 CAPLUS
 DN 63:99109
 OREF 63:18314e-g
 TI Fiber-reactive dyes
 PA Farbwerke Hoechst A.-G.
 SO 13 pp.
 DT Patent
 LA Unavailable
 FAN CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI FR 1370454		19640821	FR	
PRAI DE		19621003		
GI	For diagram(s), see printed CA Issue.			
AB	The title compds. (I) for dyeing cellulosic and synthetic fibers are monoazo dyes containing <i>p</i> -tertiary amino-, or <i>p</i> -quaternary aminoethylsulfonyl residues. I are prepared by coupling diazotized aniline derivs. (II) containing the sulfonyl residue with a variety of coupling components. II are prepared by Raney Ni catalytic hydrogenation of the corresponding nitro compds. Thus, 287 parts <i>p</i> -O ₂ NC ₆ H ₄ N(Me)SO ₂ CH ₂ CH ₂ NMe ₂ in 1000 parts EtOH is reduced with H at 30 atmospheric and at 20-30° in the presence of 40 parts Raney Ni to give 240 parts 4-H ₂ NC ₆ H ₄ N(Me)SO ₂ CH ₂ CH ₂ NMe ₂ (III), m. 127-8° (BuOH). III diazotized and coupled with 3,6,1-(HO ₃ S)2C ₁ O ₅ H ₂ (IV) gives an azo dye, scarlet, on cotton. Also prepared are [p-H ₂ NC ₆ H ₄ N(Me)SO ₂ CH ₂ CH ₂ NMe ₃] ⁺ MeSO ₄ ⁻ (m. 177°) (V) → IV, scarlet; V → 3,6,8,1-(HO ₃ S)2(AcNH)C ₁ O ₄ H ₂ (VI), bluish-red; 3-H ₂ NC ₆ H ₄ N(Me)SO ₂ CH ₂ CH ₂ NMe ₂ (m. 92-3°) → IV, reddish-orange; [3-H ₂ NC ₆ H ₄ N(Me)SO ₂ CH ₂ CH ₂ NMe ₃] ⁺ MeSO ₄ ⁻ → IV, red-orange; VII → IV, scarlet; VII → VI, bluish red.			
IT 3739-50-2P, Ammonium, [2-[[p-[(1-hydroxy-3,6-disulfo-2-naphthyl)azo]phenyl]methylsulfonyl]ethyl]trimethyl, methyl sulfate				
3740-67-8P, Ammonium, [2-[[m-[(1-hydroxy-3,6-disulfo-2-naphthyl)azo]phenyl]methylsulfonyl]ethyl]trimethyl, methyl sulfate				
RL: PREP (Preparation)				
(preparation of)				
RN 3739-50-2 CAPLUS				
CN Ethanaminium, 2-[[[4-[(1-hydroxy-3,6-disulfo-2-naphthalenyl)azo]phenyl]methylamino]sulfonyl]-N,N,N-trimethyl-, methyl sulfate (salt) (9CI) (CA INDEX NAME)				
CM 1				
CRN 50568-41-7				
CMF C22 H27 N4 O9 S3				



CM 2

L5 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

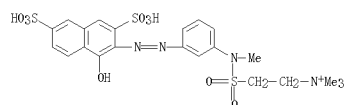
CRN 21228-90-0
 CMF C H3 O4 S

Me-O-SO₃⁻

RN 3740-67-8 CAPLUS
 CN Ethanaminium, 2-[[[3-[(1-hydroxy-3,6-disulfo-2-naphthalenyl)azo]phenyl]methylamino]sulfonyl]-N,N,N-trimethyl-, methyl sulfate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 50568-40-6
 CMF C22 H27 N4 O9 S3



CM 2

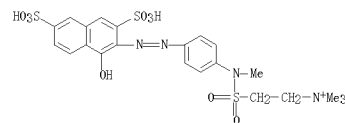
CRN 21228-90-0
 CMF C H3 O4 S

Me-O-SO₃⁻

L5 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1965:489496 CAPLUS
 DN 63:89496
 OREF 63:16507f-g
 TI Azo dyes containing N-methylsulfonamido groups
 PA Farbwerke Hoechst AG
 SO 28 pp.
 DT Patent
 LA Unavailable
 FAN CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI BE 638177		19640403	BE	
PRAI DE		19621003		
GI	For diagram(s), see printed CA Issue.			
AB	Compds. of the general formula I are prepared and give fast dyeings on cotton, viscose, polyamides, and aromatic polyesters. Thus, 287 parts <i>p</i> -O ₂ C ₆ H ₄ NMeSO ₂ CH ₂ CH ₂ NMe ₂ in 1000 parts alc. is hydrogenated at 20-30° and 30 atmospheric in the presence of 40 parts Raney Ni to give 240 parts <i>p</i> H ₂ NC ₆ H ₄ NMeSO ₂ CH ₂ CH ₂ NMe ₂ (ID), m. 127-8° (BuOH). Similarly prepared is <i>m</i> -H ₂ NC ₆ H ₄ NMeSO ₂ CH ₂ CH ₂ NMe ₂ , m. 92-3° (BuOH). II (26 parts) in 150 parts H ₂ O is diazotized and coupled with 56 parts 3,6,1-(HO ₃ S)2C ₁ O ₅ H ₂ to give I (X = H, Y = NMeSO ₂ CH ₂ CH ₂ NMe ₂), red powder, orange-red in H ₂ O, scarlet on cotton. Similarly, other I are prepd (X, Y, appearance, color of aqueous solution, and color on cotton given): NMeSO ₂ CH ₂ CH ₂ NMe ₂ , H, red powder, red-orange, reddish orange; H, NMeSO ₂ CH ₂ CH ₂ NMe ₃ MeSO ₄ ⁻ , dark powder, -, -, NMeSO ₂ CH ₂ CH ₂ NMe ₃ MeSO ₄ ⁻ , H, dark powder, orange-red, reddish orange; H, NMeSO ₂ CH ₂ CH ₂ NMe ₃ MeSO ₄ ⁻ (R = 1-pyridinium), -, scarlet.			
IT 3739-50-2P, Ammonium, [2-[[p-[(1-hydroxy-3,6-disulfo-2-naphthyl)azo]phenyl]methylsulfonyl]ethyl]trimethyl, methyl sulfate				
3740-67-8P, Ammonium, [2-[[m-[(1-hydroxy-3,6-disulfo-2-naphthyl)azo]phenyl]methylsulfonyl]ethyl]trimethyl, methyl sulfate				
RL: PREP (Preparation)				
(preparation of)				
RN 3739-50-2 CAPLUS				
CN Ethanaminium, 2-[[[4-[(1-hydroxy-3,6-disulfo-2-naphthalenyl)azo]phenyl]methylamino]sulfonyl]-N,N,N-trimethyl-, methyl sulfate (salt) (9CI) (CA INDEX NAME)				
CM 1				
CRN 50568-41-7				
CMF C22 H27 N4 O9 S3				



CM 2

CRN 21228-90-0
 CMF C H3 O4 S

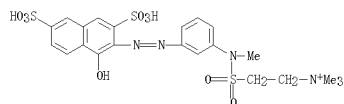
L5 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

Me-O-SO₃⁻

RN 3740-67-8 CAPLUS
 CN Ethanaminium, 2-[[[3-[(1-hydroxy-3,6-disulfo-2-naphthalenyl)azo]phenyl]methylamino]sulfonyl]-N,N,N-trimethyl-, methyl sulfate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 50568-40-6
 CMF C22 H27 N4 O9 S3



CM 2

CRN 21228-90-0
 CMF C H3 O4 S

Me-O-SO₃⁻

L5 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1965:487522 CAPLUS

DN 63:87522

OREF 63:16057g-h

T1 Regular character of hydrocarbon transformation in earth

AU Nikonov, V. F.

CS Geol. Admin., Tyumen

S0 Geologiya i Geofizika (1965), (6), 117-18

CODEN: GGASAS; ISSN: 0016-7886

DT Journal

LA Russian

AB Recalc. of the average composition of natural gases from the Paleozoic, Mesozoic, and Cenozoic formations showed that the composition of the gases depends more on the depth of deposit than on the age, lithologic composition, and geochem. properties of reservoir rock. With increased depth of gas deposit, the number of pools, containing no heavy hydrocarbons, decreases sharply. No deposit without heavy hydrocarbons was detected at the depth of 2000 m. In the same direction, i.e. with increased depth, the total content of CO₂, the d. of the natural gas, and the C₂:C₃ and C₃:C₄ ratios also increased.

IT 3739-50-2

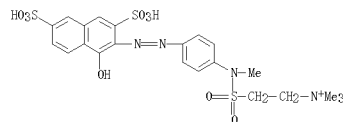
(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 3739-50-2 CAPLUS

CN Ethanaminium, 2-[[[4-[(1-hydroxy-3,6-disulfo-2-naphthalenyl)azo]phenyl]methylamino]sulfonyl]-N,N,N-trimethyl-, methyl sulfate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 50568-41-7
 CMF C22 H27 N4 O9 S3



CM 2

CRN 21228-90-0
 CMF C H3 O4 S

Me-O-SO₃⁻

L5 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1965:15643 CAPLUS

DN 62:15643

OREF 62:2852h, 2853a-b

T1 Azo dyes

PA Farbwerke Hoechst AG

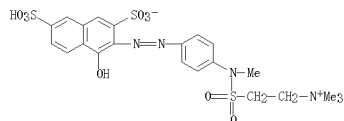
S0 20 pp.

DT Patent

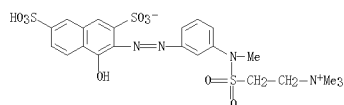
LA Unavailable

FAN CNT 1

PAT. NO.	KIND	DATE	APPLICATION NO.	DATE
PI PRAI AB	NL 298761 DE 19621003	19640511 19621003	NL	
Dyes of the general formula RN-NAMeSO ₂ CH ₂ CH ₂ NMe ₂ or RN: NANMeSO ₂ CH ₂ CH ₂ X ⁻ , where R is 1,3,6,2-HO(HO ₂ S)2C ₁₀ H ₄ , A is m- or p-C ₆ H ₄ , Z ⁺ is Me ⁺ N ⁺ or 1-pyridinium, and X ⁻ is MeSO ₄ ⁻ or HSO ₄ ⁻ , are prepared. They give wash- and lightfast shades on cotton. Thus, 20 parts 4-H ₂ NOC ₆ H ₄ NMeSO ₂ CH ₂ NMe ₂ [m. 127-8° (BuOH)] was diazotized and coupled with 56 parts 55% 1,3,6-HOC ₁₀ H ₆ (SO ₃ H) ₂ (I) to give a red powder dyeing scarlet shades. Similarly, other dyes were prepared from I (azo component and shade of dye given): 4-H ₂ NOC ₆ H ₄ NMeSO ₂ CH ₂ CH ₂ N ⁺ Me ⁺ MeSO ₄ ⁻ HCl [m. 177° (MeOH-AcOEt)], scarlet; 3-H ₂ NOC ₆ H ₄ NMeSO ₂ CH ₂ NMe ₂ [m. 92-3° (BuOH)], reddish orange; 3-H ₂ NOC ₆ H ₄ NMeSO ₂ CH ₂ CH ₂ N ⁺ Me ⁺ MeSO ₄ ⁻ , reddish orange; 4-H ₂ NOC ₆ H ₄ NMeSO ₂ CH ₂ CH ₂ Z ⁺ (Z ⁺ = 1-pyridinium), scarlet.				
IT	1262-06-2P, Ammonium, [2-[[p-[(1-hydroxy-3,6-disulfo-2-naphthyl)azo]phenyl]methylsulfonyl]ethyl]trimethyl-, hydroxide, inner salt 3755-67-5P, Ammonium, [2-[[m-[(1-hydroxy-3,6-disulfo-2-naphthyl)azo]phenyl]methylsulfonyl]ethyl]trimethyl-, hydroxide, inner salt RL: PREP (Preparation) (preparation of)			
RN	1262-06-2	CAPLUS		
CN	Ammonium [2-[[p-[(1-hydroxy-3,6-disulfo-2-naphthyl)azo]phenyl]methylsulfonyl]ethyl]trimethyl-, [2-[[p-[(1-hydroxy-3,6-disulfo-2-naphthyl)azo]phenyl]methylsulfonyl]ethyl]trimethyl-, hydroxide, inner salt (8CI) (CA INDEX NAME)			



RN 3755-67-5 CAPLUS
 CN Ammonium, [2-[[m-[(1-hydroxy-3,6-disulfo-2-naphthyl)azo]phenyl]methylsulfonyl]ethyl]trimethyl-, hydroxide, inner salt (8CI) (CA INDEX NAME)



L5 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

L5 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1964:83356 CAPLUS
 DN 60:83356
 OREF 60:14641f-g
 TI Azo dyes
 IN Matsui, Hirotosugu
 SO 6 pp.
 DT Patent
 LA Unavailable
 FAN CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 38017835	B4	19630911	JP 19610519	19610519

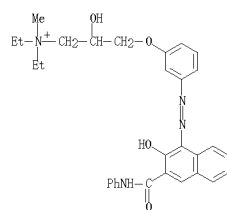
AB Azo dyes containing an Et₂NCH₂CH(OH)CH₂O group are prepared. Thus, 2.4 parts 3-Et₂NCH₂CH(OH)CH₂OCH₂OC₆H₄NH₂ (I) is diazotized and coupled with 1.2 parts PhNHMe₂ to give a dye which dyes polyacrylonitrile fibers (II) yellowish orange shades from a boiling acid bath. Also prepared are the following azo dyes (shade on II given): I → Naphthol-AS-1TR, red; 2,4-MeO(CH₃)₂C₆H₃NH₂ (III) → I, reddish orange; [(III) → I] → PhNHMe₂ (IV), dark violet. IV and Me₂SO₄ gives the quaternary ammonium salt (V), dark violet on II. V is also prepared by methylating III with Me₂SO₄ followed by diazotizing and coupling with I.

IT 90229-23-5 (Derived from data in the 7th Collective Formula Index (1962-1966))

RN 90229-23-5 CAPLUS
 CN Diethyl[2-hydroxy-3-[m-[[2-hydroxy-3-(phenylcarbamoyl)-1-naphthyl]azo]phenoxy]propyl]methylammonium methyl sulfate (7CI) (CA INDEX NAME)

CM 1

CRN 90229-22-4
 CMF C31 H35 N4 O4



CM 2

CRN 21228-90-0
 CMF C H3 O4 S

L5 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1964:83356 CAPLUS
 DN 60:83356
 OREF 60:14641c-f
 TI Azo dyes for cellulosic and nitrogen containing fibers
 IN Matsuo, Masayoshi; Yamatani, Wataru
 PA Mitsubishi Chemical Industries Co., Ltd.
 SO 7 pp.
 DT Patent
 LA Unavailable
 FAN CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 38025781	B4	19631203	JP 19610511	19610511

GI For diagram(s), see printed CA Issue.

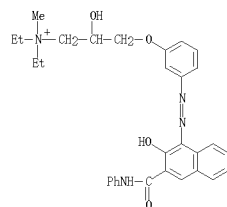
AB Chlorotriazine dyes are prepared. Thus, 1,8,3,6-AcNH(HO)C₁₀H₄(SO₃H)₂ is coupled with diazotized 2-H₂NCH₂CH₂SO₃H and the resulting monoazo dye is deacetylated, condensed with an equimolar amount of cyanuric chloride (I), then with an equimolar amount of 2,5-(H₂N)₂C₆H₃SO₃H, and finally condensed with an equimolar amount of I to give II. Cotton cloth 50 is soaked in an aqueous solution 1000 containing II 1 NaCl 20 parts to give cloth dyed a fast red shade. Similarly, other dyes are prepared (reactants and shade given): 4,2-Me(HO₃)₂C₆H₃NH₂ → [2,8,6-H₂N(HO)C₁₀H₄SO₃H, I, [4,2-H₂N(HO₃)₂C₆H₃CH₂:2], I, red on viscose; 1-amino-4-(4'-aminoanilino)anthraquinone-2,5,3'-trisulfonic acid, I, [2,5-HO₃S(AcNH)C₆H₃NH₂ → PhNHMe, deacetylated], I, green on silk; [3,4-H₂N(HO₃)₂C₆H₃NH₂, I, H₂N(CH₂)₂NH₂ (1.6 moles), I] → 3-methyl-5-pyrazolone, greenish yellow on nylon; [2,5-HO(HO₃)₂C₆H₃NH₂ → 5,2,7-HO(MeN)C₁₀H₄SO₃H, metalized with Cu], I, 2,5-(H₂N)₂C₆H₃SO₃H, I (dye III), red on cotton; [Cu phthalocyaninetetrasulfonyl chloride, 2,5-(H₂N)₂C₆H₃SO₃H (1 mole), acid chloride hydrolyzed], I (1 mole), H₂N(CH₂)₂NH₂ (1.5 moles), I (1 mole), blue on cotton.

IT 90229-23-5 (Derived from data in the 7th Collective Formula Index (1962-1966))

RN 90229-23-5 CAPLUS
 CN Diethyl[2-hydroxy-3-[m-[[2-hydroxy-3-(phenylcarbamoyl)-1-naphthyl]azo]phenoxy]propyl]methylammonium methyl sulfate (7CI) (CA INDEX NAME)

CM 1

CRN 90229-22-4
 CMF C31 H35 N4 O4



CM 2

L5 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

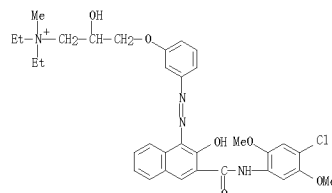
Me-O-SO₃⁻

IT 106194-19-8F, Ammonium, [3-[m-[[3-[(4-chloro-2,5-dimethoxyphenyl)carbamoyl]-2-hydroxy-1-naphthyl]azo]phenoxy]-2-hydroxypropyl]diethylmethyl, methyl sulfate
 RL: PREP (Preparation)

RN 106194-19-8 CAPLUS
 CN [3-[m-[[3-[(4-chloro-2,5-dimethoxyphenyl)carbamoyl]-2-hydroxy-1-naphthyl]azo]phenoxy]-2-hydroxypropyl]diethylmethylammonium methyl sulfate (7CI) (CA INDEX NAME)

CM 1

CRN 106194-18-7
 CMF C33 H38 Cl N4 O6



CM 2

CRN 21228-90-0
 CMF C H3 O4 S

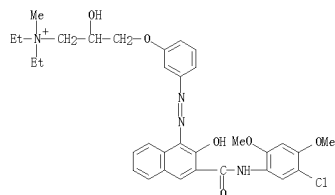
Me-O-SO₃⁻

L5 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

CRN 21228-90-0
 CMF C H3 O4 S

Me-O-SO₃⁻

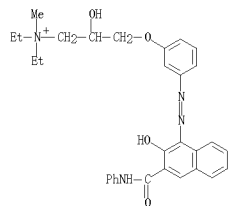
L5 ANSWER 17 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1962:430117 CAPLUS
 DN 57:30117
 OREF 57:60691,6070b-1,6071a-b
 TI Azo dyes containing $\text{CH}_2\text{CH}(\text{OH})\text{CH}_2\text{NR}_2$ groups
 AU Matsui, I. Koji; Sumaga, Toshio; Kasai, Kazuo
 CS Gama Univ., Kiryu City, Japan
 SO Yuki Gosei Kagaku Kyokaiishi (1962), 20, 4539
 CODEN: YGKKA6; ISSN: 0037-9980
 DT Journal
 LA Unavailable
 AB Reaction of epichlorohydrin followed by Et_2NH on PhNH_2 and 1-naphthylamine gave 56.65% $\text{PhNHCH}_2\text{CH}(\text{OH})\text{CH}_2\text{NEt}_2$ (I) (b_2 154-5°) and 65.5% 1-C10H7NHCH2CH(OH)CH2NEt2 (II) (b_2 210°), resp. Also, the reaction of epichlorohydrin on m-AcNHCH2CH(OH)CH2NEt2 (III), b_5 202-4°, m. 33-5°. Azo dyes were synthesized by use of I and II, resp., as coupling components, and various aromatic primary amines having no CO2H and SO3H groups, such as p-O2NC6H4NH2, p-H2NSO2C6H4NH2, and others, as diazo components. Also, azo dyes were prepared by using III as diazo component, and PhNMe2, 2-naphthol, naphthol AS, and 3-methyl-1-phenyl-5-pyrazolone as coupling components. A monoazo dye was also prepared by using III as coupling component and Fast Red B base as diazo component; further diazotation of this dye and coupling with PhNMe2, naphthol AS, etc. gave diazo dyes. The dyes thus obtained are soluble in dilute AcOH, and have good dyeing affinity for Orlon type polyacrylonitrile fiber, e.g. Exlan L, Vonnell W, and Cashmilon, with color ranges of yellow-orange-red-brown-purple. The quaternary ammonium salts of these dyes also exhibited similar properties.
 IT 107307-09-6F, Ammonium, [3-[m-[3-[5-chloro-2,4-dimethoxyphenyl]carbamoyl]-2-hydroxy-1-naphthyl]azo]phenoxy]-2-hydroxypropyl]diethylmethyl, methyl sulfate
 RL: PREP (Preparation)
 (preparation of)
 RN 107307-09-5 CAPLUS
 CN [3-[m-[3-[5-Chloro-2,4-dimethoxyphenyl]carbamoyl]-2-hydroxy-1-naphthyl]azo]phenoxy]-2-hydroxypropyl]diethylmethylammonium methyl sulfate (7CI) (CA INDEX NAME)
 CM 1
 CRN 107307-08-4
 CMF C33 H38 Cl N4 O6



L5 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1962:430115 CAPLUS
 DN 57:30115
 OREF 57:6070g
 TI Printing blankets
 IN Brown, Ernest R.
 PA Dayco Corp.
 SO 2 pp.
 DT Patent
 LA Unavailable
 FAN: CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 3053709		19620508	US 1959-850997	19591105
GB 906746			GB	
PRAI US		19591105		

AB Improved release properties of printing blankets were obtained by the addition of 2.5-5 parts of polyethylene powder based on 100 parts by weight polymer to the face or ink-receiving surface layer.
 IT 90229-23-5 107307-09-5
 (Derived from data in the 7th Collective Formula Index (1962-1966))
 RN 90229-23-5 CAPLUS
 CN Diethyl[2-hydroxy-3-[m-[2-hydroxy-3-(phenylcarbamoyl)-1-naphthyl]azo]phenoxy]propyl]methylammonium methyl sulfate (7CI) (CA INDEX NAME)
 CM 1
 CRN 90229-22-4
 CMF C31 H35 N4 O4



CM 2
 CRN 21228-90-0
 CMF C H3 O4 S

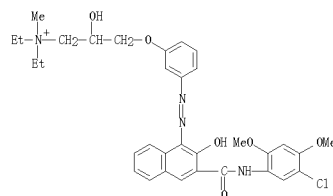
Me-O-SO3-

RN 107307-09-5 CAPLUS
 CN [3-[m-[3-[5-Chloro-2,4-dimethoxyphenyl]carbamoyl]-2-hydroxy-1-naphthyl]azo]phenoxy]-2-hydroxypropyl]diethylmethylammonium methyl sulfate (7CI) (CA INDEX NAME)
 CM 1

L5 ANSWER 17 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 CM 2
 CRN 21228-90-0
 CMF C H3 O4 S

Me-O-SO3-

L5 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 CRN 107307-08-4
 CMF C33 H38 Cl N4 O6



CM 2
 CRN 21228-90-0
 CMF C H3 O4 S

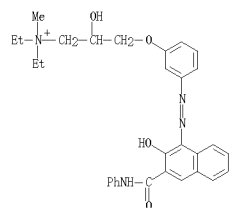
Me-O-SO3-

L5 ANSWER 19 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1962:430114 CAPLUS
 DN 57:30114
 OREF 57:6070d-g
 TI Prussian blue pigment
 IN Rhodes, William H.
 PA Standard Ultramarine & Color Co.
 SO 5 pp.
 DT Patent
 LA Unavailable
 FAN CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3021191		19620213	US 1968-740678	19680608
PRAI	US		19580608		
AB	<p>A Prussian blue pigment of improved color strength was produced without air drying or grinding by using H2O2 as oxidant. Thus, Na4Fe(CN)6.10H2O 134.2 and (NH4)2SO4 18.3 were dissolved in H2O 2500 parts at 30° . A solution of FeSO4.7H2O 103.2 and 95% H2-SO4 18.3 in H2O 1250 parts at 30° was stirred in over 30 min. The resultant white precipitate was diluted with H2O at 35° to three times its volume, and settled for 48 hrs. The supernatant liquor was decanted, a solution of (NH4)2SO4 12.2 in H2O added; the slurry stirred 50 min., adjusted to pH 9.0 with aqueous NH3, stirred 2 hrs., treated with a solution of Na2Cr2O7 3.3 in a small amount of H2O, stirred 2 hrs., filtered, washed, slurried in H2O treated with 160 parts of 35% H2O2 per 1000 parts of pigment, and agitated 15 min. before filtering. The cake was converted to an ink which, when tested against dry ground ink made from air-oxidized, dried pigment, tested 5-4% strong and red in shade. When compared with flushed 1-stage dichromate-oxidized ink, it was 108% strong and red in shade. The flushed and tinted product from the H2O2-oxidized pigment was readily dispersible and free from grit and pigment agglomerates.</p>				
IT	90229-23-5 107307-09-5				
	(Derived from data in the 7th Collective Formula Index (1962-1966))				
RN	90229-23-5 CAPLUS				
CN	Diethyl[2-hydroxy-3-[m-[[[2-hydroxy-3-(phenylcarbamoyl)-1-naphthyl]azo]phenoxy]propyl]methylammonium methyl sulfate (7CI) (CA INDEX NAME)				

CM 1

CRN 90229-22-4
 CMF C31 H35 N4 O4



L5 ANSWER 19 OF 19 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

CM 2

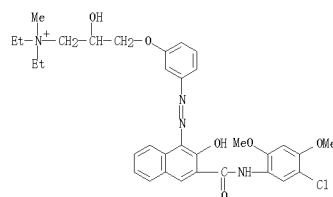
CRN 21228-90-0
 CMF C H3 O4 S

Me-O-SO3-

RN 107307-09-5 CAPLUS
 CN [3-[m-[[[3-[(5-Chloro-2,4-dimethoxyphenyl)carbamoyl]-2-hydroxy-1-naphthyl]azo]phenoxy]-2-hydroxypropyl]diethylmethylammonium methyl sulfate (7CI) (CA INDEX NAME)

CM 1

CRN 107307-08-4
 CMF C33 H38 Cl N4 O6



CM 2

CRN 21228-90-0
 CMF C H3 O4 S

Me-O-SO3-

=> d his full

(FILE 'HOME' ENTERED AT 13:55:23 ON 15 DEC 2008)

FILE 'REGISTRY' ENTERED AT 13:55:36 ON 15 DEC 2008

L1 STRUCTURE UPLOADED
L2 STRUCTURE UPLOADED
D
L3 0 SEA SSS SAM L1 OR L2
L4 55 SEA SSS FUL L1 OR L2
D QUE L4 STAT

FILE 'CAPLUS' ENTERED AT 13:57:32 ON 15 DEC 2008

L5 19 SEA ABB=ON PLU=ON L4
D 1-19 BIB ABS HITSTR

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 12 DEC 2008 HIGHEST RN 1083471-57-1

DICTIONARY FILE UPDATES: 12 DEC 2008 HIGHEST RN 1083471-57-1

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FILE CAPLUS

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=> log y

COST IN U.S. DOLLARS

SINCE FILE
ENTRY

TOTAL
SESSION

FULL ESTIMATED COST

104.03

376.92

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE
ENTRY

TOTAL
SESSION

CA SUBSCRIBER PRICE

-15.20

-15.20

STN INTERNATIONAL LOGOFF AT 13:58:13 ON 15 DEC 2008